



State of Utah

Department of
Environmental Quality

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Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

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Governor

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Lieutenant Governor

DAQE-IN0133490004-08

April 18, 2008

Frank Evans
Unlimited Designs, Inc.
11075 South State Street, Suite 30
Sandy, Utah 84070

Dear Mr. Evans:

Re: Intent to Approve: Request to Modify Approval Order #DAQE-AN3349001-06 to Increase
Production, Salt Lake County – CDS B; NA; HAPs
Project Code: N013349-0004

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any questions you may have on this project to Mr. Tom Bradley. He may be reached at (801) 536-4014.

Sincerely,

John T. Blanchard, Manager
Minor New Source Review Section

JTB:TJB:sa

cc: Salt Lake Valley Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**INTENT TO APPROVE: Request to Modify Approval Order
#DAQE-AN3349001-06 to Increase Production**

**Prepared By: Tom Bradley, Engineer
(801) 536-4014
Email: tjbradley@utah.gov**

INTENT TO APPROVE NUMBER

DAQE-IN0133490004-08

Date: April 18, 2008

Unlimited Designs, Inc.

**Source Contact
Frank Evans
(801) 990-1790**

**M. Cheryl Heying
Executive Secretary
Utah Air Quality Board**

Abstract

Unlimited Design Inc. currently operates a fiberglass panel and an architectural building components plant. They currently operate under Approval Order # DAQE-AN3349001-06. Due to increase sales, Unlimited Design Inc. is in need of increasing production. This modification to the current Approval Order involves adding equipment and increasing emissions.

Several types of molded products are manufactured at the plant using either pre-cast concrete, gypsum, or concrete. Mold forms are also fabricated at the plant using wood, fiberglass, or molded silicone rubber. For the fiberglass products, the forms are fabricated using wood and/or fiberglass. The products are then prepared in a large paint booth using a combination of coatings. The molded gypsum products are made with raw chopped fiberglass, gypsum, water, and retarder. The gypsum is allowed to cure, and the rough edges are trimmed. For light weight pre-cast concrete application, the forms are prepared by covering a master form using silicone rubber. Once the master silicone rubber is cured, it is removed and filled with concrete and slowed to set.

Unlimited Design Inc. is located in Salt Lake City. Salt Lake County is a Non-attainment area of the National Ambient Air Quality Standards (NAAQS) for particulate matter less than ten microns (PM_{10}) and sulfur dioxides (SO_2), and is a Maintenance area for carbon monoxide (CO). New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Achievable Control Technology (MACT) regulations do not apply to this source. Title V of the 1990 Clean Air Act does not apply to this source.

The emissions, in tons per year, will change as follows: $PM_{10} = + 1.56$, $NO_x = + 0.48$, $SO_2 = + 0.01$, $CO = + 0.38$, $VOC = + 3.77$, $HAPs = + 3.86$.

The changes in emissions will result in the following, in tons per year, potential to emit totals: $PM_{10} = 4.93$, $NO_x = 1.54$, $SO_2 = 0.02$, $CO = 1.23$, $VOC = 9.40$, $HAPs = 8.36$.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notice of intent to approve will be published in the Salt Lake Tribune and Deseret News on April 22, 2008. During the public comment period, the proposal and the evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests a public hearing, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated.

Please review the proposed Approval Order conditions during this period and make any comments you may have. The proposed conditions of the Approval Order may be changed as a result of the comments received. Unless changed, the Approval Order will be based upon the following conditions:

General Conditions:

1. This Approval Order applies to the following company:

Site Office

Unlimited Designs, Inc.
11075 South State Street, Suite 30
Sandy, Utah 84070

Phone Number (801) 990-1790

Fax Number (801) 858-3761

The equipment listed in this Approval Order shall be operated at the following location:

Street address & UTM's

780 North 700 West, Salt Lake City

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4,473.3 kilometers Northing, 426.7 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this Approval Order (AO) conform to those used in the UAC R307 and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401.
5. All records referenced in this AO, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request. Records shall be kept for the minimum period of two years.
6. Unlimited Designs, Inc. (Unlimited) shall install and operate the architectural building components plant and shall conduct its operations in accordance with the terms and conditions of this AO, which was written pursuant to Unlimited's NOI submitted to the Division of Air Quality (DAQ) on January 29, 2008 and subsequent information submitted on March 9, 2008.
7. This AO shall replace the AO (DAQE-AN3349001-06) dated October 3, 2006.

8. The approved installations shall consist of the following equipment or equivalent*:

- A. One Fiberglass Spray Booth
- B. Two (2) Fiberglass Resin Spray Guns
- C. One (1) Gel Coat Spray Guns
- D. Three (3) Stationary Concrete Mixers
- E. Two (2) Gypsum with Chopped Fiberglass Spray Guns
- F. Two (2) Gypsum Mixers
- G. Forklifts **
- H. Powered Saws and Miscellaneous Hand Tools **
- I. Multiple Natural Gas Fired Space Heaters **

* Equivalency shall be determined by the Executive Secretary.

** This equipment is listed for informational purposes only. There are no emissions from this equipment.

9. Unlimited shall notify the Executive Secretary in writing when the installation of the equipment listed in Condition #8 has been completed and is operational. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If the construction and/or installation has not been completed within eighteen months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO in accordance with R307-401-18.

Limitations and Tests Procedures

10. Visible emissions from any stationary point or fugitive emission source associated with the source or with the control facilities shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

Roads and Fugitive Dust

11. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emission determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall

not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary or the Executive Secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made 1/2 vehicle length or greater behind the vehicle and at approximately 1/2 the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.

12. Unlimited shall abide by a fugitive dust control plan acceptable to the Executive Secretary for control of all dust sources associated with the architectural building components plant. Unlimited shall submit a fugitive dust control plan to the Executive Secretary, attention: Compliance Section, for approval within 30 days of the date of this AO.
13. Unlimited shall abide by all applicable requirements of R307-309 for PM₁₀ non-attainment areas (Salt Lake, Utah, Davis Counties and Ogden City) for Fugitive Emission and Fugitive Dust sources.

Fuels

14. The owner/operator shall use natural gas fuel in the comfort heaters.

Volatile Organic Compound (VOC) and Hazardous Air Pollutants (HAPs) Limitations

15. The VOC content of the paint as used in the booth shall not exceed the density limits established by R307-340. High solids (low VOC content) paints shall not be thinned or otherwise reduced beyond manufacturer's recommendations. These parameters shall be tested by using the appropriate American Society for Testing and Materials (ASTM) method or another method approved by the Executive Secretary.
16. The plant-wide emissions of VOCs and HAPs from the paint booths, degreasers, contact cement applicators, etc. and associated operations shall not exceed:

9.40 tons per rolling 12-month period for VOCs

8.36 tons per rolling 12-month period for Total HAPs

6.90 tons per rolling 12-month period for Styrene

0.21 tons per rolling 12-month period for Methyl Methacrylate

0.24 tons per rolling 12-month period for Toluene

0.11 tons per rolling 12-month period for Dimethyl Phthalate

Compliance with each limitation shall be determined on a rolling 12-month total. Based on the twentieth day of each month, a new 12-month total shall be calculated using data from the previous 12 months.

The VOC and HAP emissions shall be determined by maintaining a record of VOC and HAP emitting materials used each month. The record shall include the following data for each material used:

- A. Name of the VOC and HAPs emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc.

- B. Density of each material used (pounds per gallon)
- C. Percent by weight of all VOC and HAP in each material used
- D. Gallons of each VOC and HAP emitting material used
- E. The amount of VOC and HAP (except for Styrene) emitted monthly by each material used shall be calculated by the following procedure:

$$\text{VOC} = \frac{\% \text{ VOC by Weight}}{(100)} \times \frac{[\text{Density } (\text{lb})]}{(\text{gal})} \times \text{Gal Consumed} \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

$$\text{HAP} = \frac{\% \text{ HAP by Weight}}{(100)} \times \frac{[\text{Density } (\text{lb})]}{(\text{gal})} \times \text{Gal Consumed} \times \frac{1 \text{ ton}}{2000 \text{ lb}}$$

- F. For Styrene, emissions shall be calculated based on the application method and emission factors found on Table 1 of Appendix A of Subpart WWW of Part 63 – “Equations to Calculate Organic HAP Emissions”.
- G. The amount of VOC or HAP emitted monthly from all materials used
- H. The amount of VOCs or HAPs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total VOC or HAP emissions.

Records & Miscellaneous

- 17. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on the information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on the equipment authorized by this AO shall be recorded.
- 18. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.
- 19. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the DAQ. The UAC R307 rules used by DAQ, the NOI guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

<http://www.airquality.utah.gov/>

The annual emissions estimations below include point source and fugitive dust. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, Maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for this source are currently calculated at the following values:

	<u>Pollutant</u>	<u>Tons/yr</u>
A.	PM ₁₀	4.93
B.	SO ₂	0.02
C.	NO _x	1.54
D.	CO.....	1.23
E.	VOC.....	9.40
F.	HAPs	
	Styrene.....	6.90
	Methyl Methacrylate.....	0.21
	Toluene.....	0.24
	Dimethyl Phthalate.....	0.11
	Misc. HAPs.....	0.90
	Total HAPs.....	8.36

Miscellaneous HAPs include: Ethyl Benzene, Acetic Acid, Ethyl Ester, Methyl Isobutyl Ketone, Xylene, Methanol, Bibutyl Phthalate, and Cumene

The DAQ is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Sincerely,

John T. Blanchard, Manager
Minor New Source Review Section